

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Canceled)
2. (Currently Amended) Process for the preparation of ~~an electrode~~ a cathode according to claim ~~[[1]]~~ 43 in which the porosity of said porous material, measured by ~~[[the]]~~ mercury ~~method~~ porosimetry, varies from 1 to 99%, ~~terminals~~ endpoints included.
3. (Currently Amended) Process for the preparation of ~~an electrode~~ a cathode according to claim 2 in which the porosity of said material varies from 20 to 80%, ~~terminals~~ endpoints included.
4. (Currently Amended) Process for the preparation of ~~an electrode~~ a cathode according to claim ~~[[1]]~~ 43 in which the average size of the pores in said porous material varies from 1 nanometer to 1 micrometer, ~~terminals~~ endpoints included.
5. (Currently Amended) Process for the preparation of ~~an electrode~~ a cathode according to claim 4 in which the size of the pores varies from 10 to 250 nanometers, ~~terminals~~ endpoints included.
6. (Currently Amended) Process for the preparation of ~~an electrode~~ a cathode according to claim ~~[[1]]~~ 43 in which the distribution of the pores is substantially uniform, ~~preferably, the distribution of the pores is such that its d50 is between 100 and 150 nanometers.~~
7. (Currently Amended) Process for the preparation of ~~an electrode~~ a cathode according to claim ~~[[1]]~~ 43 in which the pores are located at the surface of the porous material and extend throughout said porous material; ~~preferably the pores~~

~~have a depth between 1 micrometer and 3 millimeters and said porous material has a thickness between 2 micrometers and 3.5 millimeters.~~

8. (Currently Amended) Process for the preparation of ~~an electrode~~ a cathode according to claim 7 in which said pores do not extend entirely throughout the porous material.

9-41. (Canceled)

42. (Currently Amended) Process for the preparation of ~~an electrode according to claim 1 that is a cathode,~~ the process comprising:

pressing a prepared from one target of cathode material, said target cathode material is selected from the group consisting of LiCoO_2 , LiMn_2O_4 , $\text{LiMn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3}\text{O}_2$, $\text{LiMn}_{1/2}\text{Ni}_{1/2}\text{O}_2$, LiMPO_4 , wherein M is Fe, Co, Ni or Mn, (M = Fe, Co, Ni, Mn) and mixtures of at least two thereof, ~~the target material is pressed,~~

applying a ~~[[the]]~~ laser is ~~applied~~ on the target at capacities that ~~can vary~~ varying from 20 mW to 2 W to produce the porous material that constitutes the cathode,

~~that is thereafter stripped~~ stripping the cathode material from the target with a laser, and

~~deposited~~ depositing the porous cathode material on a porous Si/carbon/electrolyte half-battery.

43. (Currently Amended) Process for the preparation of ~~an electrode according to claim 1 that is a cathode,~~ the process comprising:

~~prepared from~~ preparing a paste solution by mixing a compound is paste form ~~made of a mixture of~~ a cathode powder with a carrier solution, of toluene, heptane or a mixture of at least ~~[[2]]~~ two thereof;

coating the pasty paste solution is coated on a plate support ~~(made of glass)~~ made of glass placed ~~100-μm~~ a distance from a substrate of silicon;

applying ~~[[the]]~~ a UV radiation laser beam is ~~applied~~ through the plate support and projecting the cathode is ~~projected~~ on the substrate by pyrolysis.

wherein the cathode comprises a porous material.

44-52. (Canceled)

53. (New) The process for the preparation of a cathode according to claim 43, wherein the plate support made of glass is placed 100 μm from the substrate of silicon.

54. (New) Process for the preparation of a cathode according to claim 42, in which the porosity of said porous material, measured by mercury porosimetry, varies from 1 to 99%, endpoints included.

55. (New) Process for the preparation of a cathode according to claim 54 in which the porosity of said material varies from 20 to 80%, endpoints included.

56. (New) Process for the preparation of a cathode according to claim 42 in which the average size of the pores in said porous material varies from 1 nanometer to 1 micrometer, endpoints included.

57. (New) Process for the preparation of a cathode according to claim 56 in which the size of the pores varies from 10 to 250 nanometers, endpoints included.

58. (New) Process for the preparation of a cathode according to claim 42 in which the distribution of the pores is substantially uniform.

59. (New) Process for the preparation of a cathode according to claim 42 in which the pores are located at the surface of the porous material and extend throughout said porous material.

60. (New) Process for the preparation of a cathode according to claim 59 in which said pores do not extend entirely throughout the porous material.

61. (New) A cathode obtained by implementing a process according to claim 42.

62. (New) A cathode obtained by implementing a process according to claim 43.

63. (New) Electrochemical system, the electrochemical system being a battery comprising:

at least one cathode as defined in claim 61,
at least one anode, and
at least one electrolyte.

64. (New) Electrochemical system according to claim 63, wherein the cathode comprises LiCoO_2 , LiMn_2O_4 , $\text{LiMn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3}\text{O}_2$, $\text{LiMn}_{1/2}\text{Ni}_{1/2}\text{O}_2$, LiMPO_4 , wherein M is Fe, Co, Ni or Mn, and mixtures of at least two thereof.

65. (New) Electrochemical system, the electrochemical system being a battery comprising:

at least one cathode as defined in claim 62,
at least one anode, and
at least one electrolyte.

66. (New) Electrochemical system according to claim 65, in which the electrolyte is a liquid, gel, or polymer.

67. (New) Electrochemical system according to claim 63, in which the electrolyte is a liquid, gel, or polymer.